

Notice of Allowability

Application No.

10/723,349

Examiner

Yuriy Semenenko

Applicant(s)

WATANABE ET AL.

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/6/2006.
2. ☒ The allowed claim(s) is/are 1,2 and 4-15.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Allowable Subject Matter

Response to Amendment

1. Amendment filed on 01/06/2006 has been entered. In response to the Office Action dated 10/04/2005, Applicants has amended claims 1, 2 and 4-10. Claim 3 has been canceled. Claims 11-15 are newly added. Claims 1-2 and 4-15 are now pending in the application.

Response to Arguments

2. Applicant's arguments filed 1/06/2006 have been fully considered and acknowledged.

2.1. Applicants' submission that reference Daanen suggests only a magnitude relationship of the coefficient between the coefficient of linear thermal expansion of the circuit board and the coefficient of linear thermal expansion of the over-molded housing, and Daanen does not teach explicitly the "resin" has a smaller coefficient of linear thermal expansion than that of the insulated layer are found persuasive.

2.2. Rest of the Applicant's arguments filed 01/06/2006 are not found persuasive. Applicant discloses in convey to claim 1 (page 7) that the heat sink 18 of Daanen differs from the "metallic substrate" of the present invention, and the circuit board 12 of Daanen does not correspond to the "insulated layer deposited over the metallic substrate" of the present invention. But there are all of this limitations (metallic substrate, "insulated layer deposited over the metallic substrate" and rest of its) in Admitted by Applicant Prior Art, (Specification Fig. 3 and page 7 [0020] and [0022]). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Drawings

3. Amendment Drawings accordingly with examiner's objection is acknowledged and approved.

Claim Objections

4. Amendment claim 2-10 accordingly with examiner's objection is acknowledged and approved.

Allowed Claims

- 5.1. Claims 1- 2, 4-15 are allowed.
- 5.2. The following is a statement of reasons for the indication of allowance:
Newly added limitations in combination with other claimed limitations in claims 1 and 7 are not disclosed or suggested by the prior art.

Relevant Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

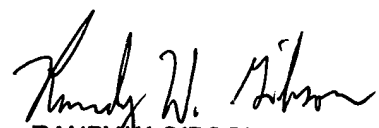
Kawakami et al. (PGPub #2004/0084756) hereafter Kawakami teaches an electronic circuit device, comprising attaching an electronic circuit assembly including a circuit substrate with electronic circuit elements attached to a base; joining lead terminals composed of a different material from that of said base integrally with said base via frames before molding with mold resin; electrically connecting lead terminals composed of a different member from said base and a material having a thermal expansion coefficient larger than a thermal expansion coefficient of said base to said electronic circuit assembly. But Kawakami reference may not be admitted as prior art because effective filing date of the reference is after Applicant's Foreign Priority Date.

7.1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuriy Semenenko whose telephone number is (571) 272-6106. The examiner can normally be reached on 8:30am - 5:00pm.

7.2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571)- 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7.3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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RANDY W. GIBSON
PRIMARY EXAMINER